

**Translation**

PATENT COOPERATION TREATY

**PCT**

522,872  
PCT/JP2003/012703  
Rec'd PCT/PTO 02 FEB 2005

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference FP-173/S/WO	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/JP2003/012703	International filing date (day/month/year) 03 October 2003 (03.10.2003)	Priority date (day/month/year) 10 October 2002 (10.10.2002)
International Patent Classification (IPC) or national classification and IPC A43B 5/10, 13/14		
Applicant SUMITOMO RUBBER INDUSTRIES, LTD.		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand 19 April 2004 (19.04.2004)	Date of completion of this report 08 November 2004 (08.11.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2003/012703

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ The international application as originally filed/furnished
- ☐ the description:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the claims:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_, as amended (together with any statement) under Article 19
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the drawings:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP03/12703

**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1-9	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-9	NO
Industrial applicability (IA)	Claims	1-9	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

Document 1: JP, 7-213304, A (SUMITOMO RUBBER INDUSTRIES, LTD.), 15 August 1995

Document 2: Microfilm of the specification and drawings annexed to the written application of Japanese Utility Model Application No. 62300/1981 (Laid-open No. 172504/1982) (NIPPON GOMU K.K.), 30 October 1982

Document 3: WO, 89-08996, A1 (CHARLES-MERIE BENETEAU), 05 October 1989

Document 4: US, 2930149, A (RIPPLE SOLE CORPORATION), 29 March 1960

Document 5: JP, 2000-106903, A (MIDORI ANZEN INDUSTRY CO.), 18 April 2000

Document 6: JP, 7-236503, A (BRIDGESTONE SPORTS CO., LTD.), 12 September 1995

Document 7: JP, 2002-17403, A (SUMITOMO RUBBER INDUSTRIES, LTD.), 22 January 2002

The subject matter of claims 1-3 does not involve an inventive step on account of documents 1-

4.

Document 1 states that with respect to a tennis shoe, improving the balance between the sliding performance and gripping performance in the direction needed when running is very important, that sliding performance needed when playing tennis is when dashing and stopping, i.e. when stopping rapidly, and the direction that needs sliding performance is mainly toward the direction of the toes, and gripping performance is needed when dashing and when suddenly changing direction to go sideways, and that the direction that needs gripping performance is the heel direction and the direction 60° from one's toes.

Documents 2-4 describe providing the bottom surface of a shoe with a plurality of parallel ridges whose lateral cross-section shape is nonsymmetrical. In particular, document 2 says "the cross-section shape of wave-shaped projecting body 2 ... does not matter as long as it is another shape (Fig. 7) with remarkable anti-sliding properties, but to summarize, it is important that it be a structure able to withstand the impact force, kicking force, etc. applied when running." (Specification, page 4, line 18 to page 5, line 3). It describes providing a plurality of parallel ridges whose lateral cross-section shape is nonsymmetrical, and describes improving gripping performance in the heel direction (it is obvious that the coefficient of friction in the toe direction is smaller than the coefficient of friction in the heel direction).

The subject matter of claim 4 does not involve an inventive step on account of documents 1-5.

Document 5 describes setting the design height of the projecting part provided at a slip-resistant shoe bottom between 1 mm and 7 mm.

**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.  
Continuation of Box V:

The subject matter of claim 5 does not involve an inventive step on account of documents 1-6.

Document 6 pertains to a design pattern for forming a tennis shoe bottom, and says the design pattern extending laterally to prevent slipping in the forward and backward directions corresponds to the design pattern extending vertically to prevent slipping in the left and right directions.

The subject matter of claims 6-9 does not involve an inventive step on account of documents 1-7.

Document 7 describes forming a grip region with a necessary ratio at a required site on the bottom of a tennis shoe.